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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,814

07/07/2004

Lars Lidgren

CU-3809 RJS

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EXAMINER

CATTUNGAL, SANJAY

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,814

Applicant(s)

LIDGREN ET AL.

Examiner

Sanjay Cattungal

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/17/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, with respect to Office Action dated 07/03/2007 have been fully considered and are persuasive. The office action has been withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-5 and 20-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,821,274 to McHale et al. in view of U. S. Patent No. 6,599,288 to Maguire et al.**
4. Regarding **Claim 1 and 20-29**, McHale teaches a device for mini-invasive ultrasound treatment of an object, wherein at least one therapeutic ultrasound transducer (Fig. 4 element 5) is arranged for treatment of the object (Fig. 4 element target tissue) by generating an ultrasonic field (Fig. 4 and Abstract), the temperature focus of which is located in the object (5) for heating thereof (Abstract and Fig. 4); wherein the therapeutic ultrasound transducer comprises a probe characterized in that said transmitter element (Fig. 4 element 5) is arranged in a rear portion (Fig. 4) and is configured to be thermally insulating (Fig. 4 element 4), whereby the transmitter element

does not heat or substantially not heat the front portion during operation. (Abstract and Fig. 4 element 4)

McHale does not expressly teach the use of a ultrasonic probe for minimally invasive procedures, for ablating tissues inside the body.

Maguire disclose the use of a ultrasonic probe for treatment of tissues inside the body. (Abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McHale with a setup such that the ultrasonic probe is used for minimally invasive procedures for ablating tissues inside the body as taught by Maguire since such a setup would result in the device being capable of minimally invasive procedures and increase the range of use for the device.

5. Regarding **Claims 2 and 5**, McHale teaches the use of a focusing device for focusing the ultrasound generated by the transmitter element. (Col. 1 lines 43-46)

6. Regarding **Claims 3 and 4**, McHale teaches focusing ultrasound waves in the tissue and hence it would be inherent that the focus range falls withing 0.5 - 20 centimeters. (Fig. 4)

7. **Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,821,274 to McHale et al. in view of U. S. Patent No. 6,599,288 to Maguire et al. further in view of U. S. Patent No. 5,327,890 to Matura et al.**

8. Regarding **Claims 6-10**, McHale in view of Maguire teach all of the above claimed limitations but do not expressly teach the use of an optical navigation device using a X-ray device and camera.

Matura teaches the use of an optical navigation device using a X-ray device and camera. (Abstract and Fig. 1)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McHale and Magure with an optical navigation device as taught by Matura since such a setup would result in a location system which would precisely locate the tissue/target region to be treated/ablated.

9. **Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,821,274 to McHale et al. in view of U. S. Patent No. 6,599,288 to Maguire et al. in view of U. S. Patent No. 5,327,890 to Matura et al. further in view of U. S. Publication No. 2005/0020918 to Wilk et al.**

10. Regarding **claims 11-19** McHale, Maguire, and Matura teach all of the above claimed limitations but do not expressly teach the use of a CT Scan system for optical navigation.

Wilk teaches the use of a CT scan system for optical navigation. (Abstract)


It would have been obvious to one of ordinary skill in the art at the time of the invention to modify modify McHale, Magure, and Matura with an CT navigation device as taught by Wilk since such a setup would result in a location system which would precisely locate the tissue/target region to be treated/ablated as the precision and quality of images in CT is much more greater than that of x-ray.

11. Regarding Claim 16, use of metallic tantalum balls are well known within the X-ray arts and it would have been obvious to use them to mark or reference.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanjay Cattungal whose telephone number is (571)272-1306. The examiner can normally be reached on 9:30 - 5:00 pm.
13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPC


Brian Casler
Supervisor
Patent Examination
Art Unit 3768